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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,209	08/23/2001	Lawrence J. Malone	P04979 (NATI15-04979)	1195

7590 09/19/2006

Docket Clerk
P.O. Drawer 800889
Dallas, TX 75380

EXAMINER

ANWAH, OLISA

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-26 are rejected under 35 U.S.C § 103(a) as being unpatentable over Barber et al, U.S. Patent Application Publication No. 2002/0106997 (hereinafter Barber) combined with Sheynblat et al, U.S. Patent Application Publication No. 2002/0016189 (hereinafter Sheynblat) in further view of Dent, U.S. Patent No. 5,940,742 (hereinafter Dent).

Regarding claim 1, Barber discloses a radio frequency transceiver comprising (paragraph 0003):

a radio frequency (RF) modem section comprising:

receive path circuitry (460) capable of receiving and down-converting an incoming RF signal to thereby produce and incoming baseband signal; and

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transmit path circuitry (460) capable of receiving and up-converting an outgoing baseband signal to thereby produce an outgoing RF signal;

a baseband section (425 and 470) comprising baseband circuitry capable of receiving and processing said incoming baseband signal and capable of generating said outgoing baseband signal; and

a power-saving apparatus (440 and 445) capable of determining that said baseband section is idle and, in response to said determination, placing the RF transceiver in a low power mode by reducing a power supply voltage providing power to said baseband section (see Figure 5).

With further respect to claim 1, Barber doesn't show the claimed first of a plurality of low-power modes. Nonetheless, Sheynblat reveals this limitation (see paragraph 0029). And so, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Barber with the modes disclosed by Sheynblat. This modification would have improved the efficiency of Barber by extending battery life in a radio frequency device as suggested by Barber.

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Further regarding claim 1, Barber mentions the power-saving apparatus comprises a timer (see Figure 4). Barber does not clearly state that only the timer is capable of receiving power when the RF transceiver is in another of the low-power modes. All the same, Dent shows this feature (see column 4). As a result, it would have been obvious at the time the invention was made to further modify the combination of Barber and Sheynblat with the circuitry of Dent. This modification would have improved the system's efficiency by extending battery life in a radio frequency device as suggested by Barber.

On the topic of claim 2, Barber teaches the RF transceiver as set forth in claim 1 wherein said power-saving apparatus is further capable of reducing a power supply voltage providing power to said receive path circuitry. Note: Barber fails to indicate the claimed second of the low-power modes. Nonetheless, Sheynblat reveals this limitation (see paragraph 0029). And so, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Barber with the modes disclosed by Sheynblat. This modification would have improved the efficiency of Barber by extending battery life in a radio frequency device as suggested by Barber.

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Regarding claim 3, see Figure 4 of Barber.

Regarding claim 4, see Figure 5 of Barber.

Regarding claim 5, see Figure 5 of Barber.

Regarding claim 6, see Figure 5 of Barber.

As per claim 7, Barber teaches the RF transceiver as set forth in claim 6 wherein said power-saving apparatus is further capable of reducing a power supply voltage providing power to said transmit path circuitry. Note: Barber fails to indicate the claimed third of the low-power modes. Nonetheless, Sheynblat reveals this limitation (see paragraph 0029). And so, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Barber with the modes disclosed by Sheynblat. This modification would have improved the efficiency of Barber by extending battery life in a radio frequency device as suggested by Barber.

Regarding claim 8, see Figure 5 of Barber.

On the matter of claim 9, Barber teaches the RF transceiver as set forth in claim 1 wherein said power-saving apparatus is further capable of reducing a power supply voltage providing power to said transmit path circuitry. Note: Barber fails to

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indicate the claimed second of the low-power modes. Nonetheless, Sheynblat reveals this limitation (see paragraph 0029). And so, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Barber with the modes disclosed by Sheynblat. This modification would have improved the efficiency of Barber by extending battery life in a radio frequency device as suggested by Barber.

Regarding claim 10, see Figure 5 of Barber.

Regarding claim 11, see Figure 5 of Barber.

Regarding claim 12, see Figure 5 of Barber.

Claim 13 is rejected for the same reasons as claim 1.

Claim 14 is rejected for the same reasons as claim 2.

Regarding claim 15, see Figure 5 of Barber.

Regarding claim 16, see Figure 5 of Barber.

Regarding claim 17, see Figure 5 of Barber.

Regarding claim 18, see Figure 5 of Barber.

Claim 19 is rejected for the same reasons as claim 7.

Regarding claim 20, see Figure 5 of Barber.

Claim 21 is rejected for the same reasons as claim 9.

Regarding claim 22, see Figure 5 of Barber.

Regarding claim 23, see Figure 5 of Barber.

Regarding claim 24, see Figure 5 of Barber.

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Regarding claim 25, Barber discloses a radio frequency (RF) transceiver, comprising:

receive path circuitry capable of receiving and down-converting an incoming RF signal to thereby produce an incoming baseband signal;

transmit path circuitry capable of receiving and up-converting an outgoing baseband signal to thereby produce an outgoing RF signal;

baseband circuitry capable of receiving and processing the incoming baseband signal and capable of generating the outgoing baseband signal; and

a power-saving apparatus capable of:

reducing power provided to the baseband circuitry in a first low-power mode;

reducing power provided to the baseband circuitry and to one of the transmit path circuitry and the receive path circuitry in a low-power mode; and

reducing power provided to the baseband circuitry, the transmit path circuitry, and the receive path circuitry in a low-power mode (see Figures 4 and 5).

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Barber falls short of illustrating the claimed second low-power mode and third low-power mode. Nonetheless, Sheynblat reveals this limitation (see paragraph 0029). And so, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Barber with the modes disclosed by Sheynblat. This modification would have improved the efficiency of Barber by extending battery life in a radio frequency device as suggested by Barber.

Further regarding claim 25, Barber mentions the power-saving apparatus comprises a timer (see Figure 4). The combination of Barber and Sheynblat does not clearly state that only the timer is capable of receiving power when the RF transceiver is in the third low-power modes. All the same, Dent shows this feature (see column 4). As a result, it would have been obvious at the time the invention was made to further modify the combination of Barber and Sheynblat with the circuitry of Dent. This modification would have improved the system's efficiency by extending battery life in a radio frequency device as suggested by Barber.

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Regarding claim 26, see paragraph 0029 of Sheynblat, column 4 of Dent and Figure 5 of Barber.

Response to Arguments

3. Applicant alleges the following:

- Barber lacks any mention of a plurality of low power modes.
- Barber lacks any mention that only timer 440 or only timer 445 receives power when the wireless modem operates in the low power sleep mode.
- Sheynblat lacks any mention that only a timer receives power when the portable cellular transceiver operates in one of the low power modes.
- There is no plurality of sleep modes in the Dent pager device.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). More specifically, the Examiner does not rely on Barber to show a plurality of low power modes. Nor

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does the Examiner use Barber to show that only the timer is capable of receiver power when the RF transceiver is in another of the low-power modes. Additionally, the Examiner does not rely on Sheynblat to prove that only a timer receives power when the portable cellular transceiver operates in one of the low power modes. Lastly, the Examiner does not use Dent to prove a plurality of sleep modes in the pager device. Because the proposed combination teaches all the claimed limitations, the Examiner cannot allow the claims as presently claimed.

In response to applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

4. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olisa Anwah whose telephone number is 571-272-7533. The examiner can normally be reached on Monday to Friday from 8.30 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be


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reached on 571-272-7547. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 571-273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

O.A.

Olisa Anwah
Patent Examiner
September 13, 2006


FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600